



Importance of myorelaxation in patients with severe coma

Usmonov U.R

Bukhara State Medical Institute.

ABSTRACT

In recent years, in patients with severe head injuries, the symptoms of ALV are observed more often, and the need for artificial respiration is observed more often. In this article, parameters of a total of 65 patients during artificial respiration were monitored in the ALV device. In 40 of the total patients, tracheal intubation and ALV apparatus were used to create an optimal environment during artificial respiration. The reduction of resistance to the ALV apparatus led to the normalization of intracranial pressure and the normalization of the amount of oxyhemoglobin in the intracranial pressure. Hypotonia and deepening of consciousness were observed in 25 patients

Keywords:

ALV (artificial lung ventilation) myorelaxation, oxyhemoglobin.

Muscle relaxants that reduce the tone of skeletal muscles with a decrease in motor activity up to complete immobilization.

The mechanism of action - the blockade of H-cholinergic receptors in the synapses stops the supply of nerve impulses to the skeletal muscles, and the muscles stop contracting. Relaxation goes from bottom to top, from the tips of the toes to the facial muscles.[2,4,7]

The diaphragm relaxes last. Conductivity is restored in the reverse order. The first subjective sign of the end of muscle relaxation is the patient's attempts to breathe on his own. Signs of complete decurarization: the patient can raise and hold his head for 5 seconds, tightly squeeze his hand and breathe on his own for 10-15 minutes without signs of hypoxia.[6,9,11,12] Objectively, the degree of effect of muscle relaxants is determined using the following methods: electromyography, accelomyography, peripheral neurostimulation, mechanomyography.

The time of action of muscle relaxants is prolonged in the presence of such factors: hypotension, hypoxia, hypercapnia, metabolic

acidosis, hypovolemia, impaired microcirculation, hypokalemia, deep anesthesia, hypothermia, and the elderly age of the patient. The effect on the M-cholinergic receptors of the heart, smooth muscles and the vagus nerve depends on the drug and dose. Some muscle relaxants can trigger the release of histamine.[8,10,14]

Do not pass through the blood-brain barrier (BBB). Crossing the placental barrier (PB) is drug and dose dependent. Not soluble in fats. Binding to blood proteins depends on the drug. The main route of administration is intravenous, but some muscle relaxants are also taken orally (eg, tizanidine).

Materials and methods: A total of 65 patients were observed and monitored during the year. [16,20] A depolarizing muscle relaxant used for muscle relaxation. Daily hemoglobin hematocrit and CIV, and the amount of oxyhemoglobin in the mine. Pulse oximetry method, capnography, for continuous monitoring of the body's oxygen saturation.

Analysis and results: During the follow-up studies, a total of 65 patients were observed to be out of sync with the USV device. In 45 elderly patients, adaptation to the USV apparatus, vital activities: pulse rates were in the range of 70-80, arterial blood pressure was normalized, and saturation rates in pulse oximetry were higher than 90-95%. From the results of the analysis, the amount of oxyhemoglobin and carboxyhemoglobin in the deposit was studied in continuous analysis.

Type of hemoglobin	The percentage of content in an adult
HbA - adult hemoglobin	98%
HbA2 - adult hemoglobin minor	About 2%
HbFi - fetal hemoglobin	0,5-1%
Embryonic hemoglobin	No
HbA1C - glycated hemoglobin	

Conclusion: the use of myorelaxants in patients during USV leads to an increase in the amount of oxyhemoglobin in the bone and a decrease in the amount of carboxyhemoglobin. The level of oxygen saturation of the mine increases, leading to a decrease in hypoxia and its complications.

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